



PTO/SB/08A (10-01)

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<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		<b>Application Number</b>	10/057,582		
		<b>Filing Date</b>	January 23, 2002		
		<b>First Named Inventor</b>	Frederick Blattner		
		<b>Group Art Unit</b>	1636		
		<b>Examiner Name</b>	To be assigned		
<b>Sheet</b>	1	<b>of</b>	6	<b>Attorney Docket Number</b>	960296.95726

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
<i>M</i>	A1	US-5,747,662	05-05-1998	Simmons et al.	
<i>M</i>	A2	US-5,578,464	11-26-1996	Lunn et al.	
<i>M</i>	A3	US-5,824,502	10-20-1998	Honjo et al.	
<i>M</i>	A4	US-5,962,327	10-05-1999	Dujon et al.	
<i>M</i>	A5	US-6,015,709	01-28-2000	Natesan	
<i>M</i>	A6	US-6,022,952	02-08-2000	Weiner et al.	
<i>M</i>	A7	US-6,117,680	09-12-2000	Natesan et al.	
<i>M</i>	A8	US-6,238,924	05-29-2001	Dujon et al.	
<i>M</i>	A9	US-6,335,178	01-01-2002	Weiner et al.	
<i>M</i>	A10	US-6,372,476	04-16-2002	Belguith et al.	
<i>M</i>	A11	US-6,410,273	06-25-2002	Crouzet et al.	
<i>M</i>	A12	US-6,509,156	01-21-2003	Stewart et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>2</sup> - Number <sup>4</sup> - Kind Code <sup>3</sup> (if known)				
<i>M</i>	B1	WO 96/14,408	05-17-1996	Chouluka		
<i>M</i>	B2	WO 02/14,495 A2	02-21-2002	Court et al.		
<i>M</i>	B3	EP 0177343	04-09-1986	Lawrence et al.		

<b>Examiner Signature</b>	<i>M. T. J.</i>	<b>Date Considered</b>	1/5/05
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		First Named Inventor	Frederick Blattner
		Group Art Unit	1636
		Examiner Name	To Be Assigned
		Attorney Docket Number	960296.75726
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher city and/or country where published	T <sup>2</sup>
W	C1	Balbas (2001). <b>Understanding the art of producing protein and non-protein molecules in E. coli.</b> Molec Biotechnol 19: 251-267	
W	C2	Baneyx (1999). <b>Recombinant protein expression in E. coli.</b> Current Opinion in Biotech 10: 411-421	
W	C3	Berry et al. (2002). <b>Application of metabolic engineering to improve both production and use of biotech indigo.</b> J Indust Micro & Biotech 22: 127-133	
W	C4	Blattner et al. (1997). <b>The complete genome sequence of Escherichia coli K-12.</b> Science 277:1453-74	
W	C5	Blaudeck et al. (2001). <b>Specificity of single peptide recognition in TAT-dependent bacterial protein translocation.</b> J. Bacteriology 183:604-610	
W	C6	Court et al. (2002). <b>Genetic engineering using homologous recombination.</b> Annu. Rev. Genet. 36: 361-88	
	C7	<del>Current Protocols in Molecular Biology (1994). 16.6.1-16.6.14 (Copyrighted 2000 by John Wiley et al. and Sons)</del>	
W	C8	Danese et al. (1998). <b>Targeting and assembly of periplasmic and outer-membrane proteins in Escherichia coli.</b> Annu. Rev. Genet. 32:59-94	
W	C9	Datsenko et al (2000). <b>One-step inactivation of chromosomal genes in Escherichia coli K-12 using PCR products.</b> Proc. Natl. Acad. Sci. 97:6640-6649	
W	C10	Degryse (1995). <b>Evaluation of Escherichia coli <i>recBC sbcBC</i> mutants for cloning by recombination in vivo.</b> J. Biotechnology 39: 181-187	

Examiner Signature	<i>My T. Ng</i>	Date Considered	1/5/05
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<i>W</i>	C11	DeLisa et al. (2001). <b>Quorum sensing via AI-2 communicates the metabolic burden associated with heterologous protein production in E. coli.</b> Biotech Bioeng 75(4): 439-450	
	C12	<del>Fehér et al. (September 11, 2002). <b>Engineering a reduced Escherichia coli genome.</b> Conference Abstract.</del>	
<i>W</i>	C13	Fekkes et al. (1999). <b>Protein targeting to the bacterial cytoplasmic membrane.</b> Microbiol. Mol. Biol. Rev. 63:161-193	
<i>W</i>	C14	Gill et al. (2000). <b>A comparative study of global stress gene regulation in response to overexpression of recombinant proteins in E.coli.</b> Metabolic Engineering 2: 178-189.	
<i>W</i>	C15	Hanahan et al. (1983). <b>Studies on transformation of Escherichia coli with plasmids.</b> J. Mol. Biol. 166(4):557-580	
<i>W</i>	C16	Hannig (1998). <b>Strategies for optimizing heterologous protein expression in Escherichia coli.</b> Trends Biotechnol. 16(2):54-60	
<i>W</i>	C17	Hayashi et al (2001). <b>Construction of a genetic linkage map of the model legume Lotus japonicus using an intraspecific F2 population.</b> DNA Research 8: 11-22	
<i>W</i>	C18	Hockney (1994). <b>Recent developments in heterologous protein production in Escherichia coli.</b> Trends Biotechnol. 12(11):456-632	
<i>W</i>	C19	Hynds et al. (1998). <b>The sec-independent twin-arginine translocation system can transport both tightly folded and malformed proteins across the thylakoid membrane.</b> J. Biol. Chem. 273:34868-34874	
<i>W</i>	C20	Kitamura (1995). <b>DNA sequence changes in mutations in the ton B gene on the chromosome of Escherichia coli K-12: insertion elements dominate the spontaneous spectra.</b> Jpn J Genet 70: 35-46	
<i>W</i>	C21	Kolisnychenko et al. (2002). <b>Engineering a reduced Escherichia coli genome.</b> Genome Research 12:640-647	
<i>W</i>	C22	Koob et al.. <b>Minimizing the genome of Escherichia coli.</b> Ann. N.Y. Acad. Science	

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W	C23	Koonin (2000). <b>How many genes can make a cell: The minimal-gene-set concept.</b> Ann Rev Genom Hum Genet 1: 99-116	
W	C24	Lee (1996). <b>High cell-density culture of Escherichia coli.</b> TIBTECH 14:98-103	
W	C25	Murphy (1998). <b>Use of bacteriophage <math>\lambda</math> recombination functions to promote gene replacement in <i>Escherichia coli</i>.</b> J. Bacteriol. 180: 2063-2071	
W	C26	Muyrers et al. (1999). <b>Rapid modification of bacterial artificial chromosomes by ET-recombination.</b> Nucl. Acids. Res. 27: 1555-1557	
W	C27	Neidhardt et al. (1974). <b>Culture medium for Enterobacteria.</b> J. Bacteriol. 119:736-747	
W	C28	Oliner et al. (1993). <b>In vivo cloning of PCR products in <i>E. coli</i>.</b> Nucleic Acids Res. 2(22): 5192-7	
W	C29	Otto et al. (2002). <b>Surface sensing and adhesion of <i>E. coli</i> controlled by the Cpx-signaling pathway.</b> Proc. Nat. Acad. Sci. US 99(4): 2287 2292	
W	C30	Perna et al. (2001). <b>Genome sequence of enterohaemorrhagic <i>Escherichia coli</i> O157:H7.</b> Nature 409:529-533	
W	C31	Perna et al. (2002). <b>The genomes of <i>Escherichia coli</i> K-12 and pathogenic <i>E. coli</i>.</b> Pathogenic <i>E. coli</i> Paradigm for Bacterial pathogenesis, M.S. Donnenberg, Editor. Academic Press	
W	C32	Pfeifer et al. (2001). <b>Biosynthesis of complex polyketides in a metabolically engineered strain of <i>E. coli</i>.</b> 291: 1790-1792	
W	C33	Posfai et al. (1997). <b>Versatile insertion plasmids for targeted genome manipulations in bacteria: isolation, deletion, and rescue of the pathogenicity island LEE of the <i>Escherichia coli</i> O157:H7 genome.</b> J. Bacteriol. 179: 4426 -4428	
W	C34	Posfai et al. (1999). <b>Markerless gene replacement in <i>Escherichia coli</i> stimulated by a double-strand break in the chromosome.</b> Nucl. Acids Res. 27:4409-4415	

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<i>W</i>	C35	Pugsley (1993). The complete general secretory pathway in gram-negative bacteria. Microbiol. Rev. 57:50-108	
<i>W</i>	C36	Reisenberg (1991). High cell density cultivation of E.coli at controlled specific growth rate. J. Biotech 20(1): 17-27	
<i>W</i>	C37	Ritz et al. (2001). Roles of thiol redox pathways in bacteria. Annu Rev Microbiol 55: 21-48	
	C38	<del>Sambrook et al. (1989). Molecular Cloning: a Laboratory Press, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y.</del>	
	C39	<del>Sanford (16-17 May 2002). The role of Biotechnology in Industrial Sustainability in section "Factory of tomorrow." Conference, Antwerp.</del>	
<i>W</i>	C40	Santini et al. (1998). A novel sec-independent periplasmic protein translocation pathway in Escherichia coli. EMBO J. 17:101-112	
<i>W</i>	C41	Sargent et al. (1998). Overlapping functions of components of a bacterial Sec-independent protein export pathway. EMBO J. 17:3640-50	
	C42	<del>Schaechter et al. (1997). Introduction. In Escherichia coli and Salmonella (ed. Neidhart, FC et al.) 1-2. ASM Press, Washington, DC.</del>	
<i>W</i>	C43	Selinger et al. (2000). RNA expression analysis using a 30 base pair resolution Escherichia coli genome array. Nat Biotechnol 18(12): 1262-1268	
<i>W</i>	C44	Simmons et al. (1996). Translational level is a critical factor for secretion of heterologous proteins in E. coli. Nature 14: 629-634	
<i>W</i>	C45	Sing-Gasson et al. (1999). Maskless fabrication of light-directed oligonucleotide microarrays using a digital micromirror array. Nat Biotechnol. 17(10): 974 978	
<i>W</i>	C46	Swartz (2001). Advances in E. coli production of therapeutic proteins. Curr Opinion in Biotech 12: 195-201	

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Sheet 6 of 6			Attorney Docket Number	960296.75726

<i>W</i>	C47	Thomas et al. (2001). Export of active green fluorescent protein to the periplasm by the twin-arginine translocase (Tat) pathway in <i>Escherichia coli</i> . Mol. Micro. 39(1):47-53	
<i>W</i>	C48	Venkatesan et al. (2001). Complete DNA Sequence and analysis of the large virulence plasmid of <i>Shigella flexneri</i> . Infection of Immunity 3271-3285	
<i>W</i>	C49	Weiner et al. (1998). A novel and ubiquitous system for membrane targeting and secretion of cofactor-containing proteins. Cell 93:93-101	
<i>W</i>	C50	Welch et al. (2002). Extensive mosaic structure revealed by the complete genome sequence of uropathogenic <i>Escherichia coli</i> . Proc. Natl. Acad. Sci. USA 99(26): 17020-17024	
<i>W</i>	C51	Yu et al. (2000). An efficient recombination system for chromosome engineering in <i>Escherichia coli</i> . Proc. Natl. Acad. Sci. USA 97: 5978-5983	
<i>W</i>	C52	Yu et al. (2002). Minimization of the <i>Escherichia coli</i> genome using a Tn5-targeted Cre/LoxP excision system. Nature Biotech. 20:1018-1023	
<i>W</i>	C53	Zhang et al. (1998). A new logic for DNA engineering using recombination in <i>Escherichia coli</i> . Nature Genetics 20: 123-128	
<i>W</i>	C54	Zhang et al. (2000). DNA cloning by homologous recombination in <i>Escherichia coli</i> . Nature Biotechnology 18: 1314-1317	
<i>W</i>	C55	Zhang et al. (2003). Phage annealing proteins promote oligonucleotide-directed mutagenesis in <i>Escherichia coli</i> and mouse ES cells. BMC Molecular Biology 4: 1	
<i>W</i>	C56	Yu et al. (Oct. 2002), Minimization of the <i>Escherichia coli</i> genome using Tn5-targeted Cre/loxP excision system, Nature Biotechnology, Vol. 20, pp. 1018-1023.	

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